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Business performance of women self-help groups under Godhan Nyay Yojna in model Gothan Bancharoda, Raipur district of Chhattisgarh.

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Abstract

The present study was conducted in Model Gothan Bancharoda Raipur district of Chhattisgarh, to know the business performance four women self-help group was selected purposively from the arrange block of Raipur district. Godhan Nyay Yojana is the scheme recently launched on 20 July 2020, on the occasion of Hareli, the first festival of the state by the Chhattisgarh Government. This scheme aims at boosting the rural economy by procuring cow dung. The primary data was collected in the economic year 2021-22 from sampled households through personal interview method. The field survey it was observed that maximum 71 percent members belonged to the age group of 35-45 years, Literacy Level of the Respondents was observed that 2 percent Respondents were illiterate and 98 per cent of Respondents are Literate and 98 per cent of members were married and remaining 2 per cent members of SHG were found widowed. The identified products was are cow dung Diya, cow dung Gamla, Organic soap, Cow dung Crockery Vermi Compost, Agnastra, Nimastra, Bramhastra, Dashparni ark. Total returns per year per product was observed Rs. 84000, 65,000, Rs. 3,14,300, Rs. 5168, Rs.6089, Rs.6089 and 6281 Rs respectively. On an average the benefit – cost ratio of Products (Diya, Gamla, Vermi Compost, Agnastra, Nimastra, Bramhastra and Dashparni ark) came to 1:1.16, 1:1.20, 1:1.45, 1:3.5, 1:3.5, and 1:3.6 respectively. Women's SHG made a total net profit of Rs. 4, 86, 927 per year from the various products.

Keywords: women entrepreneur, finance, business performance, SHG

Introduction

Godhan Nyay Yojana is the scheme recently launched on 20 July 2020, on the occasion of Hareli, the first festival of the state by the Chhattisgarh Government. This scheme aims at boosting the rural economy by procuring cow dung at Rs 2 per kg from farmers and cattle rearers initially in the rural area later in the urban area too. (GOCG, 2022)

Cow dung may not only act as a substitute for chemical fertilizers because it supplements organic matter, but also as a conditioner for soil (Garg and Kaushik 2005; Yadav *et al.* 2013; Belanger *et al.* 2014) [2, 6].

Women entrepreneurs are the single or a group of women together, who start off, organize and run a business. the Government of India defines as the Women entrepreneurs as an enterprise owned and governed by women having a minimum financial interest of 51 percent to the startup funds and giving at least 51 per cent employment possibility in the enterprise women " (Leelavathi 2020) [4].

Self Help Groups are becoming one of the most important means for the empowerment of poor women (Minimol and Makesh, 2012) [5]. According to NABARD the self-help group is a group of 20 or less people from an equal class who are agreeable to come together to forward their problems, savings and use the conjoint savings to give interest-bearing loans to their members. SHG as a program has been generally accepted over the country. Women come together to utilize their pooled savings in income generating activities. (Kumar, N. (2021) [3].

Materials and Methods

Chhattisgarh state consist 32 districts, out of which one district from Chhattisgarh namely Raipur district was selected purposively because the Bancharoda Gothan form Raipur was awarded for model Gothan.

Data collection

The primary data was collected through personal interview method and recorded the information on pre-tested questionnaire and schedule from selected SHGs. The primary data comprised of expenditure, income, marketing pattern of processed products of Self-Help Group.

Sampling methodology

The present study was conducted in Model Gothan Bancharoda Raipur district of Chhattisgarh, to know the business performance Four women self-help group was selected purposively from the arrange block of Raipur district i.e. Dhanlaxmishelp help group, Vijya Laxmi self-help group and Durga Shakti self-help group under the Gothan project.

Analytical framework

All the cost and return involved in Self Help Groups were consist for the present study. The data were analysed by using simple tabular analysis, average, percentage and ratios were calculated whenever necessary.

Input output ratio

Input output ratio can be expressed as the ratio of total output to total input. The ratio was calculated as:

$$\text{Input output ratio} = \frac{\text{Total output}}{\text{Total input}}$$

Total Input

Express of purchasing raw materials such as cow dung powder, premix powder, aloe vera, charcoal, Tulsi, rose jel, lemon grass oil labour cost and other cost etc.

Total output

The quantity of SHGs products sold by SHGs were treated as the output value.

Variable Cost Ratio (VC Ratio)

The Variable Cost ratio is an expression of a SHGs variable production costs as a percentage of sales, calculated as variable costs divided by total gross income.

$$\text{V C Ratio} = \frac{\text{variable cost}}{\text{gross income}} \times 100$$

With the help of this ratio the management will be able to plan how much gross income required to cover the cost and how the profit is going to change with the production level. This can be used as a tool for future production.

Results and discussion

To estimate cost and return of major products of SHGs. Cost and returns of Cow Dung Diyas by women self-help group (SHG)

The cost of production of Cow dung Diya in Rs/kg was worked out and presented in Table 4.8 and Fig. 4.3. It reveals that cost of production of Diya was Rs 129/ kg of cow dung (30 pieces of small diyas and 15 large diyas). The maximum cost incurred for purchasing of premix powder was 35 rs /kg followed by cost of labour and oil was 15 rs/kg respectively total variable cost was Rs. 89. And the (total fix cost) rental value of the constructed unit for three months Rs. 40, so total fix cost was Rs. 40 and the total cost of production was Rs. 129. The MRP cost of product was Rs. 150 and selling price was Rs. 150 and net return of product was Rs. 21. Thus according to this data the input output ratio was calculated 1:1.16. Variable cost was 0.68 and V.C. cost ratio was 68 %.

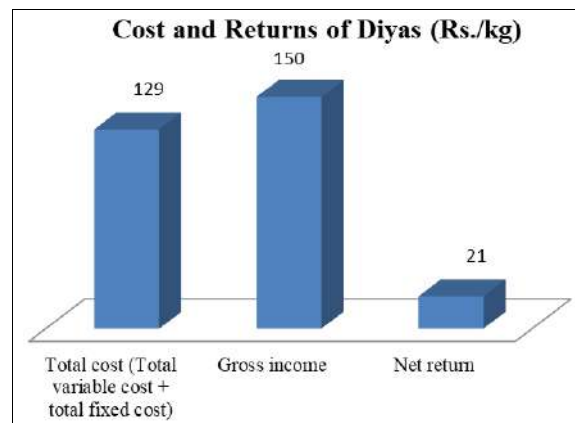


Fig 1: Cost and Returns of Diyas (Rs./kg)

Table 1: Cost and returns of Cow Dung Diyas:

S. No.	Particulars (Diyas)	Unit (Rs./kg)
1	Raw materials (Variable costs)	
i	Cow dung powder (cow dung @ Rs. 2/kg) (1kg cow dung powder requires 6kg cow dung)	12
ii	Premixes powder	35
iii	Oil	15
iv	Miscellaneous cost	12
v	Labour charge	15
	Total variable cost	89
2	Fixed cost	
i	Rental value of the constructed unit for 3 months	40
3	Total fixed cost	40
4	Total cost (Total variable cost + total fixed cost)	129
5	Total MRP of 30/ 15 diyas produced from 1kg [30 small size diya / 10 large size diyas]. (Small diya @ Rs. 5/ unit and large diya @ Rs. 10/ unit)	150
6	Gross income	150
7	Net return	21
8	Input output ratio (B:C ratio)	1:1:16
9	Variable cost ratio	0.69
10	Variable cost ratio (%)	68.99

Business performance of Self-help group of diya production: The business performance of cow dung diyas in bye self-help group Bancharauda Arang were as follows.

The total sale of cow dung diyas 60,000 pieces / year, net returns per cow dung diyas was Rs. 1.4 and total returns was Rs. 84,000 per year.

Table 2: Business performance of cow dung diya production

Sl. No.	Particulars	Total sale/year	Net returns/ cow dung diya (in Rs.)	Total returns/ year (in Rs.)
1.	Green Diyas	60,000	1.4	84000
	Total			84000

Cost and returns of Cow Dung Gamla by women self-help group (SHG): The cost of preparation of Cow dung Gamla in Rs/piece was worked out and presented in Table 4.8 and Fig. 4.3. It reveals that cost of production of Cow dung Gamla was Rs 7 per piece. For making of 1 piece of Cow dung Gamla maximum cost incurred for purchasing of Premix powder was 1.5 rs followed by cost of cow dung 2rs and cost of labour and miscellaneous cost was 1rs, respectively. Total variable cost was Rs. 6.5. And the (total fix cost) rental value of the constructed unit for three months Rs. 0.5 of per piece of gamla, so total fix cost was Rs. 0.5 and the total cost of production was Rs. 7. The MRP cost of product was Rs. 20 and selling price was Rs. 20 and net return of product was Rs. 13. Thus according to this data the input output ratio was calculated 1:1.20 Variable cost was 0.93 and V.C. cost ratio was 92 %.

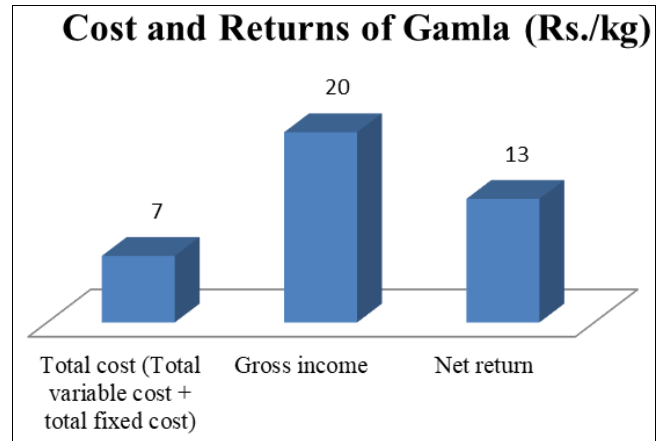


Fig 2: Cost and Returns of Gamla (Rs./kg)

Table 3: Cost of Production of Gamla in Rs per Piece.

Sl. No.	Particulars (Gamla)	Unit (Rs./kg)
1	Raw materials (Variable costs)	
I	Cow dung powder (cow dung @ Rs. 2/kg)	2
ii	Premixes powder	1.5
iii	Oil	1
iv	Miscellaneous cost	1
V	Labour charge	1
	Total variable cost	6.5
2	Fixed cost	
I	Rental value of the constructed unit for 3 months	0.5
	Total fixed cost	7
3	Total cost (Total variable cost + total fixed cost)	7
4	Total MRP of Gamla @ Rs. 20/ unit)	20
5	Gross income	20
6	Net return	13
7	Input output ratio (B:C ratio)	01:01.2
8	Variable cost ratio	0.93
9	Variable cost ratio (%)	92.86

Business performance of Self-help group of Gamla production: The business performance of cow dung Gamla in bye self-help group Bancharauda Aran were as follows.

The total sale of cow dung Gamla 500 pieces / year, net returns per cow dung Gamla was Rs. 13 and total returns was Rs. 65000 per year.

Table 4: Business performance of cow dung Gamla production

Sl. No.	Particulars	Total sale/ year	Net returns/ cow dung Gamla (in Rs.)	Total returns/ year (in Rs.)
1.	Gamla	5000	13	65000
	Total			65000

Cost and Returns of self-help group vermicompost production

In product wise expenditure of vermicompost production for the constructed method was calculated and it is present in table number 4.3 the total variable cost of was Rs. 6557 for

1 bed in one period. The total fixed cost was Rs. 300 for 1 bed in one period. The gross income was Rs. 10000 for 1 bed. The input output ratio was 1:1.45 for 1 bed. The net income was 3143for 1 bed in 1 period. And the net cost benefit ratio for 1 bed was 1:0.45.

Table 5: Cost and Returns of Vermicompost production.

Sl. No.	Particulars	Unit (Rs./q)	Physical unit/ bed material	Cost of 1 bed (Rs.)	Size of bed (12*5*3)
Variable cost					
(i)	Cow dung @ Rs. 1.50/kg	150.00	9	1350.00	
(ii)	Crop wastage @ Rs. 1	126.50	6	759.00	
(iii)	Electricity & water charges	2.00	10	20.00	
(iv)	Earthworm cost @ Rs. 150/kg	0.157	0.04(4kg)	628.00	
(v)	Marketing & packaging cost	105.00	10	1050.00	
(vi)	Miscellaneous cost	25.00	10	250.00	
(vii)	Labour charge	250.00	10	2500.00	
2.	Total variable cost	658.65		6557.00	
Fixed cost					
(i)	Rental value of constructed unit for 3 months	30.00	10	300.00	
4.	Total fixed cost	30.00		300.00	
5.	Total cost	688.65		6857.00	
6.	Gross income	1000.00	10	10000.00	
7.	Net income	311.34		3143.00	
8.	Input output ratio (B:C Ratio)	1:1.45		1:1.45	
9.	Variable cost ratio	0.658		0.6557	
10.	Variable cost ratio (%)	65.80		65.57	

The business performance of Vermicompost by self-help groups: The total cost, production, gross income and net income was calculated in the table 4.4 and it was noted that production of vermicompost in a year of 1 bed was 30q and for 50 beds yearly production was 1500q in the constructed method. The total cost of vermicompost production was calculated in the constructed method was Rs. 13714 for 1

bed and for the 50 bed was Rs. 685700 Total gross returns earned by Vermicompost was Rs. 20000.00 from 1 bed and yearly total gross returns from 50 beds was Rs. 1000000.00 in the constructed method. Net income on the total cost for 1 bed was Rs. 6282 and yearly net income for 50 beds was Rs. 3, 14,300 in the constructed method.

Table 6: Business performance of Vermicompost unit

Sl. No.	Particulars	Cost & Production of 1bed (in whole year 2 times)	Size of bed (12*5*3)	Cost & Production of 50 beds
1.	Total cost	Rs. 13714		Rs. 685700
2.	Production	30		1500
3.	Gross income	Rs. 20000.00		Rs. 1000000.00
4.	Input output ratio	1:1.45		1:1.45
5.	Net income	Rs.6286		Rs. 3,14,300

Table 7: Cost and return by Biopesticides. (Rs/Litter).

S.N.	Particular	Agnastra	Dashparni Ark	Neemmastra	Bramhastra
Variable Cost					
1					
(i)	Material Cost	5.45		1	1
(ii)	Packaging Cost				
	a. Bottle	20	20	20	20
	b. Label	5	5	5	5
(iii)	Labour cost	2	2	2	2
	Total Variable cost	32.45	27	28	28
2	Fixed cost				
(i)	Rental value of constructed unit for 2 months for 100 liter of biopesticide 40rs	0.4	0.4	0.4	0.4
I	Total fixed cost	0.4	0.4	0.4	0.4
3	Total cost	32.85	27.4	28.4	28.4
4	Gross income (100 rs ltr)	100	100	100	100
5	Net income	67.15	72.6	71.6	71.6
6	Input output ratio (B:C Ratio)	1:3.5	1:3.6	1:3.5	1:3.5
7	Variable cost ratio	0.48	0.37	0.39	0.39
8	Variable cost ratio (%)	48.32	37.19	39.11	39.11

Cost and Returns of Agnastra production by self-help group

The cost of production of Agnastra in Rs/liter was worked out and presented in Table 4.10 and fig 4.17. It reveals that cost of production of Agnastra was Rs 32.85 per liter. For making of 1 liter of Agnastra maximum cost incurred for purchasing of Bottle was 20 rs followed by cost of label 5rs per piece, tobacco 2.55rs and cost of labour 2rs. Total variable cost was Rs.32.45. And the (total fix cost) rental value of the constructed unit for three months Rs. 0.4 of per liter, so total fix cost was Rs. 0.5 and the total cost of

production was Rs. 32.85. The selling price was Rs. 100 and net return of product was Rs. 67.15. Thus according to this data the input output ratio was calculated 1:1.32 Variable cost was 0.48 and V.C. cost ratio was 48.32 %.

Cost and Returns of Dashparni Ark production

The cost of production of Dashparni Ark in Rs/liter was worked out and presented in Table 4.13 and Fig. 4.20. It reveals that cost of production of Dashparni Ark was Rs27.4 per liter. For making of 1 liter of Dashparni Ark maximum cost incurred for purchasing of Bottle was 20 rs followed by

cost of label 5rs per piece and cost of labour 2rs. Total variable cost was Rs.27 and the (total fix cost) rental value of the constructed unit for three months Rs. 0.4 of per liter, so total fix cost was Rs. 0.4 and the total cost of production was Rs. 27.4. The selling price was Rs. 100 and net return of product was Rs. 72.6. Thus according to this data the input output ratio was calculated 1:3:6 Variable cost was 0.37 and V.C. cost ratio was 37.19 %.

Cost and Returns of Neemastra production

The cost of production of Neemastra in Rs/liter was worked out and presented in Table 4.11 and Fig. 4.18. It reveals that

cost of production of Neemastra was Rs 28.4 per liter. For making of 1 liter of Neemastra maximum cost incurred for purchasing of Bottle was 20 rs followed by cost of label 5rs per piece and cost of labour 2rs. Total variable cost was Rs.28 and the (total fix cost) rental value of the constructed unit for three months Rs. 0.4 of per liter, so total fix cost was Rs. 0.4 and the total cost of production was Rs. 28.4. The selling price was Rs. 100 and net return of product was Rs. 71.6. Thus according to this data the input output ratio was calculated 1:3.5 Variable cost was 0.39 and V.C. cost ratio was 39.11 %.

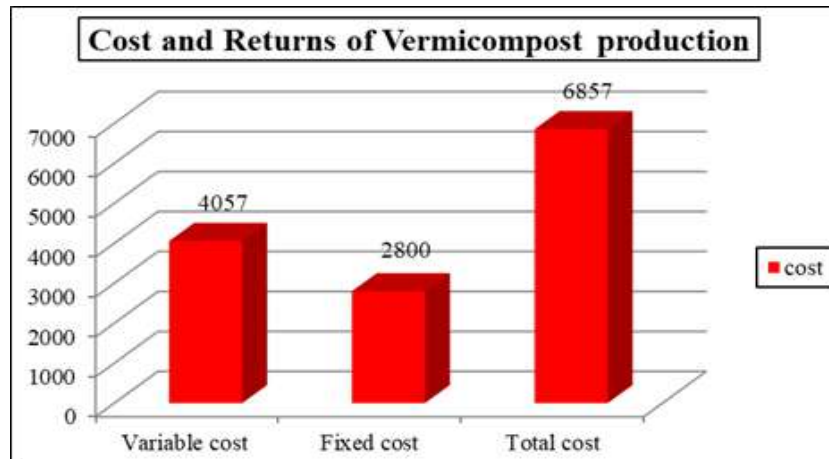


Fig 3: Cost of Vermicompost Production

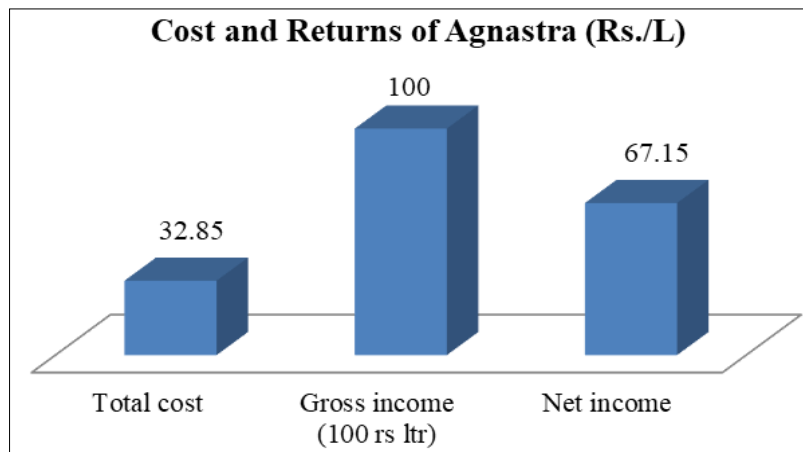


Fig 4: Cost and Returns of Agnastra

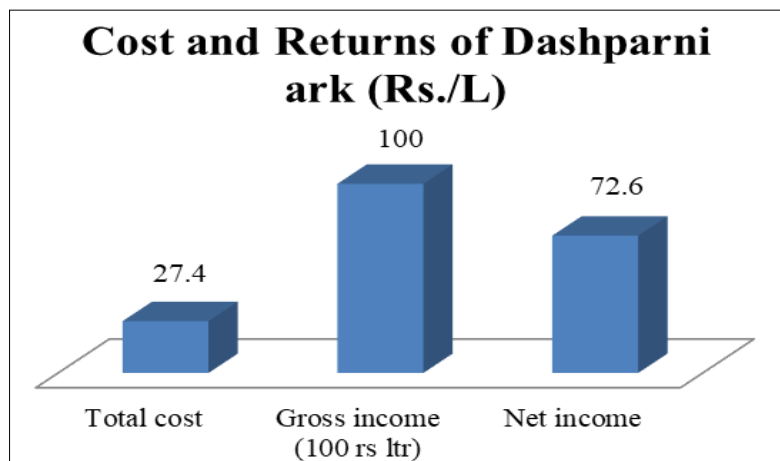


Fig 5: Cost and Returns of Dashparni Ark

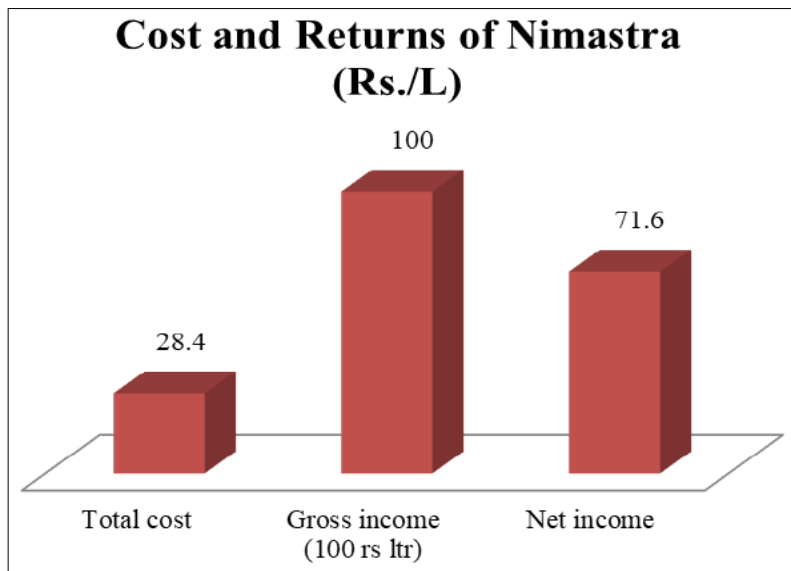


Fig 6: Cost and Returns of Neemastra (Rs./L)

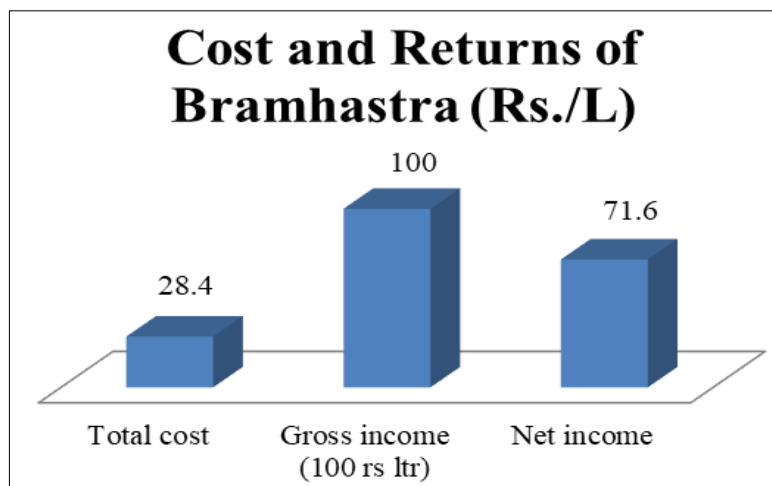


Fig 7: Cost and Returns of Bramhastra.

Cost and Returns of Bramhastra production self-help group by: The cost of production of Bramhastra in Rs/liter was worked out and presented in Table 4.12 and Fig. 4.19. It reveals that cost of production of Bramhastra was Rs 28.4 per liter. For making of 1 liter of Bramhastra maximum cost incurred for purchasing of Bottle was 20 rs followed by cost of label 5rs per piece and cost of labour 2rs. Total variable cost was Rs.28 and the (total fix cost) rental value of the constructed unit for three months Rs. 0.4 of per liter, so total fix cost was Rs. 0.4 and the total cost of production was Rs. 28.4. The selling price was Rs. 100 and net return of product was Rs. 71.6. Thus according to this data the input output

ratio was calculated 1:3:5 Variable cost was 0.39 and V.C. cost ratio was 39.11 %.

Business performance of Self-help group of Bio-pesticide production: The business performance of Bio-pesticide in by self-help group Bancharauda Arang were as follows. The total sale of Agnastra, Neemastra, Bramhastra and Dashparni Ark 100 litter/ year for each biopesticide, net returns of per litter of Agnastra, Neemastra, Bramhastra and Dashparni Ark was Rs. 51.68, Rs.60.89, Rs.60.89 and Rs.62.81Rs. and total returns per year was Rs. 5168, Rs.6089, Rs.6089 and 6281 Rs and respectively.

Table 8: Business performance of Biopesticide production

Sl.No.	Particulars	Total sale/ year	Net returns/ per litre of Biopesticide (in Rs.)	Total returns/ year (in Rs.)
1	Agnastra	100	51.68	5168
2	Neemastra	100	60.89	6089
3	Bramhastra	100	60.89	6089
4	Dashparni Ark	100	62.81	6281
Total				23627

Total Returns from Different Products

Table 9: Total Returns from Different Products.

Sl. No.	Product	Net Return (Rs.)
1	Green Diya	84,000
2	Cow dung Gamla	65,000
3	Vermicompost	3,14,300
4	Aгнаstra	5,168
5	Neemastra	6089
6	Bramhastra	6089
7	Dashparni Ark	6281
	Total	4, 86, 927

The Net income of Different products were estimated in Rs/Annum and presented Table 4.15. Green Diyas Cow dung Gamla, Vermi compost Agnastra, Neemastra, Bramhastra and Dashparni Ark However the net returns of was Rs. 3,14,300 by Vermicompost which was maximum among all seven products Followed by Rs. 84000 by Green Diyas, Rs 65,000 by Gamla, Rs 6281 by Dashparni Ark, Rs 6089 by Neemastra, Rs 6089 by Bramhastra and Rs. 5168 by agnastra per year.

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